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(71) Applicant: SHIMADZU CORP
(72) Inventor: OMAE YOSHINOBU

**(54) FREQUENCY TYPE TEMPERATURE
MEASURING APPARATUS**

(57) Abstract:

PURPOSE: To reduce the power consumption of a sensor head side to a large extent, by driving a liquid crystal by the output pulse signal of a temp.-frequency conversion means.

CONSTITUTION: An oscillation circuit 2 is formed by using a quartz vibrator 1 having a temp.-frequency characteristic and the oscillation output thereof is divided by a frequency dividing circuit 3 to drive a liquid crystal apparatus 4. The power source of the oscillation circuit 2 and a frequency dividing circuit 3 is supplied by a battery 5. On the other hand, a light emitting element 8 and a light receiving element 9 are provided to the main body side of a measuring instrument and the light of the light emitting element 8 is guided to one surface of the liquid crystal apparatus 4 through a light emitting optical fiber 6 while the liquid crystal pervious light thereof is guided to the light receiving element 9 through a light receiving optical fiber 7. In this case, the output signal of the light receiving element 9 is supplied to a frequency counter through a wave form

shaping circuit 10. By this constitution, the consumption of the battery 5 of a sensor head side is extremely reduced. As the result, the power consumption of the sensor head side can be reduced to a large extent.

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